

Employees paid for time spent on school and nonprofit initiatives

August 1, 2018

"I love the questions and theories the youngest students come up with—they are so creative and some of the questions are so deep they knock me off my feet!"

Astrophysicist Nicole Lloyd-Ronning is just one of nearly 300 skilled volunteers from the Laboratory that supported 189 STEM education initiatives in Northern New Mexico last year under the Laboratory's Science Education Community Service program.

"It's extremely rewarding to see kids get really excited about science," she says.

The program, funded by the National Nuclear Security Administration (NNSA), pays for employees to spend up to 32 hours per calendar year volunteering in science education and outreach activities with schools and other organizations primarily within Northern New Mexico. In 2017 volunteers put in more than 3,300 hours of time, impacting more than 3000 students and teachers.

"The Laboratory employees get involved in a wide range of activities," says Janelle Vigil-Maestas from the Lab's Community Partnerships Office, who oversees the program. "Coaching robotics teams, mentoring high school students, teaching coding classes and judging science bowls – they have a big impact across the region."

Lloyd-Ronning is a member of the Bradbury Science Ambassadors program, regularly visits elementary schools throughout northern New Mexico to do hands-on physics and astronomy experiments with students, and organized a STEM day for students from the BEST Academy in Albuquerque.

"I think it is a real problem that a number of groups - women and minorities in particular - are severely underrepresented in many STEM fields," she says. "Not only are we denying opportunity to a huge number of potentially transformative future scientists, but science itself suffers when we don't include everyone in the conversation."

Robotics volunteering

Matt Williams is another Lab researcher who volunteers under the program. He runs a robotics program for Carlos F. Vigil Middle School in Española, and previously taught the science program at the San Idelfonso summer school program.

"The enthusiasm and hard work I see the students put into building their robots just amazes me," he says. "One of my greatest rewards was when one of my students told me 'I woke up this morning and I wasn't going to go to school, but then I realized that it

was robotics today, so I came to school'. You never really know how much of an impact you may have on the students."

The robotics program, which is also supported by the Northern New Mexico Chapter of the American Society of Mechanical Engineers (ASME), focuses on building fighting robots that compete in competitions.

"I just knew that young students would work much harder to make a robot for destruction!" Williams says. "It's very important to expose these students to STEM education in unique and exciting ways."

Supporting education initiatives is an important part of the Laboratory's broader commitment to community involvement in Northern New Mexico. In addition, the Laboratory is always looking to hire for a range of technical and scientific positions, especially from within the region, so there is a practical benefit to the Laboratory as well.

"The Community Service program is such a valuable resource to connect scientists at the Lab with our neighbors in surrounding communities," says Lloyd-Ronning. "If we want to create a Lab with a more inclusive, diversified and stronger scientific workforce, this type of program is what we need!"

If you think your school or organization's STEM education activities could benefit from the help of volunteers from the Laboratory, please contact Janelle Vigil-Maestas on (505) 665-4329 or vigil-m@lanl.gov.

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